

APPLICANT: Keeping  
SERIAL NUMBER: 09/507,239

35 U.S.C. § 102

Claims 38, 39, 42-44, and 47-49 were rejected for anticipation by Yamaguchi et al. The claims have been amended to require that the cells be isolated from a bone marrow aspirate and that the cells are contacted with ECM. Yamaguchi describes treatment of two “bone marrow derived stromal cell lines ST2 and MC3T3-G2/PA6”. These researchers fail to describe isolated and treatment of primary cells taken from a bone marrow aspirate of a mammal. Moreover, Yamaguchi et al. fail to describe culturing the cells on ECM. Therefore, the amended claims are not anticipated by this reference.

35 U.S.C. § 103

Claims 38-49 were rejected for obviousness over Rueger et al. in view of Yamaguchi et al.

The claims have been amended to require inducing differentiation of a stromal cell isolated from bone marrow aspirate by contacting the cells with BMPs such as BMP-6 and an ECM. Rueger et al. fail to describe stromal cells isolated from a bone marrow aspirate, nor do these researchers describe culturing cells *ex vivo* in the presence of BMP-6 and ECM. As discussed above, Yamaguchi et al. also fails to describe stromal cells isolated from bone marrow aspirates and culturing such cells in the presence of ECM and BMP-6. Thus, the combination of references cited by the Examiner does not describe or suggest all of the limitations of the amended claims. Withdrawal of this rejection is therefore requested.

**CONCLUSION**

On the basis of the foregoing amendments, Applicants respectfully submit that the pending claims are in condition for allowance. If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact either of the undersigned at the telephone number provided below.

APPLICANT: Keeping

SERIAL NUMBER: 09/507,239

A petition for extension of time and a check in the amount of \$460.00 is enclosed to cover the petition fee for a three month extension of time pursuant to 37 C.F.R. § 1.17(a)(3). The Commissioner is hereby authorized to charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 21486-028.

Respectfully submitted,



Ingrid A. Beattie, Ph.D., J.D.  
Registration No. 42,306  
Attorney for Applicants  
c/o MINTZ LEVIN COHN FERRIS  
GLOVSKY & POPEO, PC  
One Financial Center  
Boston, Massachusetts 02111  
Tel.: (617) 542 6000  
Fax: (617) 542-2241



APPLICANT: Keeping  
SERIAL NUMBER: 09/507,239

RECEIVED

DEC 03 2002

TECH CENTER 1600/2900

EXHIBIT A

Marked up Version

38. (amended) A method of inducing differentiation of an isolated bone marrow stromal cell, comprising contacting said cell ex vivo with bone morphogenic protein-6 and an extracellular matrix, wherein said cell is isolated from a bone marrow aspirate.

43. (amended) A method of inducing differentiation of an isolated bone marrow stromal cell, comprising contacting said cell ex vivo with an ECM and a bone morphogenic protein (BMP) selected from the group consisting of BMP-2, BMP-4, and BMP-6, wherein said cell is isolated from a bone marrow aspirate.